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10/731,604	12/08/2003	Srikanth Karimisetty	021756-002100US	4746

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EXAMINER
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MORRISON, JAY A

ART UNIT	PAPER NUMBER
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2168

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/731,604	Applicant(s) KARIMISSETTY ET AL.	
	Examiner Jay A. Morrison	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Remarks*

1. Claims 1-20 are pending.

### ***Claim Status - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. As per claims 1-10, these claims appear to conform to 35 USC 101 requirements. The claimed method produces a useful, concrete and tangible result and seems to establish a practical application according to the specification, paragraphs [0102]-[0104]. These claims appear to be directed to an appropriate **process** within the meaning of 35 USC 101.

4. As per claims 11-15, these claims appear to conform to 35 USC 101 requirements. The claimed computer system comprises physical elements, a processor and computer-readable memory as defined in paragraph [0033] of the specification, which constitute part of a device or combination of devices to be a **machine** within the meaning of 35 USC 101.

5. As per claim 16-20, these claims appear to conform to 35 USC 101 requirements. The claimed computer-readable storage medium is defined in paragraph

[0066] of the specification, where storing on computer readable medium is storing on a durable storage device. These claims are directed to appropriate **manufacture** within the meaning of 35 USC 101 since the medium would only reasonably be reasonably interpreted by one of ordinary skill in the art as covering embodiments which are articles produced from raw or prepared materials and structurally connected to the program in such a manner as to enable the program to act as a computer component and realize its functionality.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 1,11 and 16 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: how is “the set of database tables configured to translate a query element to an associated user-identified element in the unstructured data”, since a database table is simply a storage structure inside of a relational database system and it is not clear how a data structure such as a table could do such translation.

8. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: how is “the set of database tables configured to translate a query element to an associated user-identified element in the first and

second plurality of XML elements”, since a database table is simply a storage structure inside of a relational database system and it is not clear how a data structure such as a table could do such translation.

9. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: how “the set of database tables are configured to translate a first query element that represents the first XML element and not the second XML element and a second query element that represents the second XML element and not the first XML element”, since a database table is simply a storage structure inside of a relational database system and it is not clear how a data structure such as a table could do such translation.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 1-7 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wakefield et al. ('Wakefield' hereinafter) (Publication Number 2004/0215634) in view of Krishnaprasad et al. ('Krishnaprasad' hereinafter) (Publication Number 2002/0078068) and further in view of Alpha et al. ('Alpha' hereinafter) (Publication Number 2003/0033275).

As per claim 1, Wakefield teaches

A method of searching unstructured data stored in a database, the method comprising: (see abstract and background)

storing unstructured data in a column of a database table; (columns contain free text stored in BLOBs, paragraph [0021], lines 5-8)

receiving user input identifying one or more elements in the unstructured data as query elements; (analysts find facts, events, attributes in free text that could be stored in relational table, paragraph [0024], lines 6-9)

Wakefield does not explicitly indicate "in response to the user input identifying the one or more elements in the unstructured data as query elements, the set of database

tables configured to translate a query element to an associated user-identified element in the unstructured data" nor "generating one or more queries on the unstructured data using the query elements".

However, Krishnaprasad discloses "in response to the user input identifying the one or more elements in the unstructured data as query elements, the set of database tables configured to translate a query element to an associated user-identified element in the unstructured data" (map fields to CLOBs, paragraph [0021], lines 10-15; 'configured to' indicates intended use; *Minton v. Nat'l Ass'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003) "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." Examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are: (A) "adapted to" or "adapted for" clauses; (B) "wherein" clauses; and (C) "whereby" clauses. Therefore intended use limitations are not required to be taught, see MPEP § 2106 Section II(C), MPEP 2111.04 [R-3]) and "generating one or more queries on the unstructured data using the query elements" (text index used to optimize a search on the LOB column, paragraph [0045]; note that the LOB column contains the unstructured data and fields can be mapped to CLOBs, paragraph [0021], lines 10-15).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of "in response to the user input identifying the one or more elements in the unstructured data as query elements, the set of database tables configured to translate

a query element to an associated user-identified element in the unstructured data" and "generating one or more queries on the unstructured data using the query elements" would have given those skilled in the art the tools to improve the invention by splitting up its constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

Neither Wakefield nor Krishnaprasad explicitly indicate "generating a set of database tables".

However, Alpha discloses "generating a set of database tables" (generate tables, paragraph [0036], lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield, Krishnaprasad and Alpha because using the steps of "generating a set of database tables" would have given those skilled in the art the tools to improve the invention by allowing queries that contain conditions for both unstructured and structured data to be efficiently processed. This gives the user the advantage of being able to find pertinent data.

As per claim 2,

Wakefield does not explicitly indicate "the one or more queries specify at least one value and an operation that is to be performed on a user-identified element in the unstructured data".



However, Krishnaprasad discloses “the one or more queries specify at least one value and an operation that is to be performed on a user-identified element in the unstructured data” (paragraphs [0019],[0050]-[0053]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of “the one or more queries specify at least one value and an operation that is to be performed on a user-identified element in the unstructured data” would have given those skilled in the art the tools to improve the invention by splitting up its constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

As per claim 3,

Wakefield does not explicitly indicate “the one or more queries further include a start date and an end date”.

However, Krishnaprasad discloses “the one or more queries further include a start date and an end date” (paragraphs [0019],[0050]-[0053]; note that the use of dates is not functionally distinct from using any other value).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of “the one or more queries further include a start date and an end date” would have given those skilled in the art the tools to improve the invention by splitting up its

constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

As per claim 4, Wakefield teaches  
the unstructured data is stored in character large object (CLOB) format.  
(paragraph [0021], lines 3-7)

As per claim 5,  
Wakefield does not explicitly indicate “the unstructured data comprises a well-formed XML document stored within a column of a database table”.

However, Krishnaprasad discloses “the unstructured data comprises a well-formed XML document stored within a column of a database table” (paragraph [0020], lines 5-10; figure 1, item 108).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of “the unstructured data comprises a well-formed XML document stored within a column of a database table” would have given those skilled in the art the tools to improve the invention by splitting up its constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

As per claim 6,

Wakefield does not explicitly indicate "XML fields of the unstructured data are filled with transaction data from a database transaction based on a predefined mapping to multiple data sources".

However, Krishnaprasad discloses "XML fields of the unstructured data are filled with transaction data from a database transaction based on a predefined mapping to multiple data sources" (paragraphs [0019],[0050]-[0053]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of "XML fields of the unstructured data are filled with transaction data from a database transaction based on a predefined mapping to multiple data sources" would have given those skilled in the art the tools to improve the invention by splitting up its constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

As per claim 7,

Wakefield does not explicitly indicate "the multiple data sources comprise multiple tables of a database".

However, Krishnaprasad discloses "the multiple data sources comprise multiple tables of a database" (paragraph [0016], lines 1-6):

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield and Krishnaprasad because using the steps of "the multiple data sources comprise multiple tables of a database" would have given

those skilled in the art the tools to improve the invention by splitting up its constituent attributes and element data before storage into a database. This gives the user the advantage of being able to find pertinent data.

As per claims 11-15,

These claims are rejected on grounds corresponding to the arguments given above for rejected claims 1-6 and are similarly rejected.

As per claims 16-20,

These claims are rejected on grounds corresponding to the arguments given above for rejected claims 1-2 and 4-6, respectively, and are similarly rejected.

12. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wakefield et al. ('Wakefield' hereinafter) (Publication Number 2004/0215634) in view of Krishnaprasad et al. ('Krishnaprasad' hereinafter) (Publication Number 2002/0078068) and further in view of Alpha et al. ('Alpha' hereinafter) (Publication Number 2003/0033275) and further in view of Grainger (Publication Number 2002/0116363).

As per claim 8, Wakefield teaches

the unstructured data (paragraph [0021], lines 7-10)

Neither Wakefield, Krishnaprasad nor Alpha explicitly indicate "is part of an electronic record stored in a common repository of electronic records that provides an audit trail that cannot be altered or disabled by users of the system".

However, Grainger discloses "is part of an electronic record stored in a common repository of electronic records that provides an audit trail that cannot be altered or disabled by users of the system" (paragraph [0069]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Wakefield, Krishnaprasad and Alpha because using the steps of "is part of an electronic record stored in a common repository of electronic records that provides an audit trail that cannot be altered or disabled by users of the system" would have given those skilled in the art the tools to improve the invention by ensuring that a user cannot intentionally change the contents of a database system for his or her benefit. This gives the user the advantage of being ensured of having a secure system protected from unscrupulous users.

13. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnaprasad et al. ('Krishnaprasad' hereinafter) (Publication Number 2002/0078068) and further in view of Alpha et al. ('Alpha' hereinafter) (Publication Number 2003/0033275).

As per claim 9, Krishnaprasad teaches

A method of searching XML data stored in a column of a database table in character large object (CLOB) format, the method comprising: (see abstract and background)

storing the XML data in the column of the database table; (one column for CLOBs, paragraph [0021], lines 10-15)

wherein the XML data comprises a first plurality of XML elements (XML documents, paragraph [0016], lines 3-5; each field of the XML document, paragraph [0016], lines 9-11)

and a second plurality of XML elements (XML documents, paragraph [0016], lines 3-5; each field of the XML document, paragraph [0016], lines 9-11)

receiving user input identifying one or more elements in the first and second plurality of XML elements as query elements; (user creates template to map fields to CLOBs, paragraph [0021], lines 10-15)

in response to the user input identifying the one or more elements in the first and second plurality of XML elements as query elements, the set of database tables configured to translate a query element to an associated user-identified element in the first and second plurality of XML elements; (user creates template to map fields to CLOBs, paragraph [0021], lines 10-15; 'configured to' indicates intended use; Minton v. Nat'l Ass'n of Securities Dealers, Inc., 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003) "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." Examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of

the language in a claim are: (A) "adapted to" or "adapted for" clauses; (B) "wherein" clauses; and (C) "whereby" clauses. Therefore intended use limitations are not required to be taught, see MPEP § 2106 Section II(C), MPEP 2111.04 [R-3])

and generating one or more queries on the unstructured data using the query elements (text index used to optimize a search on the LOB column, paragraph [0045]; note that the LOB column contains the unstructured data and fields can be mapped to CLOBs, paragraph [0021], lines 10-15).

Krishnaprasad does not explicitly indicate "that conform to a first data type definition (DTD)" nor "that conform to a second DTD".

However, Fernandez discloses "that conform to a first data type definition (DTD)" and "that conform to a second DTD" (XML documents each of which conforms to a different DTD, column 1, lines 62-66).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Krishnaprasad and Fernandez because using the steps of "that conform to a first data type definition (DTD)" and "that conform to a second DTD" would have given those skilled in the art the tools to improve the invention by allowing documents of various format to be handled. This gives the user the advantage of having a more dynamic solution capable of handling various formats.

Neither Krishnaprasad nor Fernandez explicitly indicate "generating a set of database tables".

However, Alpha discloses "generating a set of database tables" (generate tables, paragraph [0036], lines 1-4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Krishnaprasad, Fernandez and Alpha because using the steps of "generating a set of database tables" would have given those skilled in the art the tools to improve the invention by allowing queries that contain conditions for both unstructured and structured data to be efficiently processed. This gives the user the advantage of being able to find pertinent data.

As per claim 10,

and wherein the set of database tables are configured to translate a first query element that represents the first XML element and not the second XML element and a second query element that represents the second XML element and not the first XML element. (paragraphs [0019],[0050]-[0053]; 'configured to' indicates intended use; *Minton v. Nat 'l Ass 'n of Securities Dealers, Inc.*, 336 F.3d 1373, 1381, 67 USPQ2d 1614, 1620 (Fed. Cir. 2003) "whereby clause in a method claim is not given weight when it simply expresses the intended result of a process step positively recited." Examples of claim language, although not exhaustive, that may raise a question as to the limiting effect of the language in a claim are: (A) "adapted to" or "adapted for" clauses; (B) "wherein" clauses; and (C) "whereby" clauses. Therefore intended use limitations are not required to be taught, see MPEP § 2106 Section II(C), MPEP 2111.04 [R-3])



Krishnaprasad does not explicitly indicate "the first and second DTDs include first and second XML elements, respectively, that share a common name but represent different types of data".

However, Fernandez discloses "the first and second DTDs include first and second XML elements, respectively, that share a common name but represent different types of data" (column 1, lines 62-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Krishnaprasad and Fernandez because using the steps of "the first and second DTDs include first and second XML elements, respectively, that share a common name but represent different types of data" would have given those skilled in the art the tools to improve the invention by allowing documents of various format to be handled. This gives the user the advantage of having a more dynamic solution capable of handling various formats.

### ***Response to Arguments***

14. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The prior art made of record, listed on form PTO-892, and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay A. Morrison whose telephone number is (571) 272-7112. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Vo can be reached on (571) 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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A handwritten signature in black ink, appearing to read 'Tim Vo', with a stylized, flowing script.

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